

THE ORIBATID MITES (ACARI: CRYPTO-STIGMATA) OF KOREA (5)

ON NEW AND UNRECORDED SPECIES OF THE FAMILY OPPIIDAE

Seong Sik Choi

Laboratory of Plant Protection, College of Agriculture,
Won Kwang University, 510 Iri, Korea

Synopsis

CHOI, Seong Sik (Laboratory of Plant Protection, College of Agriculture, Won Kwang University, 510 Iri, Korea): The oribatid mites (Acari: Cryptostigmata) of Korea (5). On new and unrecorded species of the family Oppiidae. *Acta arachnol.*, 34: 61-67 (1986).

The present paper deals with 5 Korean species belonging to the family Oppiidae GRANDJEAN, 1954. They are *Brachioppiella ctenifera barbata* subsp. nov., *Multioppia gapsaensis* sp. nov., *Oppia sagami* AOKI, 1984, *O. minutissima* SELLNICK, 1950 and *Parasynoppia longisensillata* AOKI, 1983. The three known species are new to Korea. The species *ctenifera* was transferred from the genus *Oppia* to *Brachioppiella*.

Brachioppiella ctenifera barbata subsp. nov.

(Fig. 1)

Material examined. Holotype: Mt. Songli, 600 m above the sea level, Chungcheong Buk Do, Central Korea. 2-IV-1983.—2 paratypes: Gapsa Temple around, Chungcheong Nam Do, Central Korea. 13-X-1984. All the specimens are deposited in Laboratory of Plant Protection, College of Agriculture, Won Kwang University, Iri, Korea.

Measurement. Length: 270-295 μ m, width: 140-150 μ m.

Description. [Prodorsum] Rostrum smooth and roundly triangular. Costulae and translamella combined to form an arch located on the posterior to the middle part of prodorsum. Two pairs of obscure circular light areas found on the

posterior part between interlamellar setae. Also, several (4-5) circular light areas arranged in lateral side of each costula. The posterolateral field of prodorsum heavily chitinized and covered by granules. Thus, the field appears to be a greyish colour. A small tubercle situated on posterior end, behind interlamellar seta. Rostral setae thin, barbed and longer than their mutual distance, extending beyond the tip of rostrum; each rostral seta inserted on a small apophyse distant from the rostral tip. Lamellar setae thin, subequal to or longer than their mutual distance and subequal to rostral seta; they inserted on rather tall apophyse located on arch-shaped costulae; their mutual distance subequal to that of rostral setae. Interlamellar setae fine, thin, smooth and short. Sensillus elbowed forward and distinctly pectinated (6-7 pectinations). The pectinations long, but gradually decreasing in length towards the distal end of sensillus; the first cilia and smooth basal part of sensillus subequal in length and shorter than the pectinated part.

[Notogaster] Nine pairs of notogastral setae thin and barbed. Anterior part of notogaster distinctly chitinized. Lyrifissure *ia* located anteriorly behind the bothridium and *gla* situated behind the seta *h*₃.

[Ventral side] All epimeral setae barbed and the setal formula: 3-1-3-3. Epimeral fields III and IV fused. Genitoanal chaetotaxy: 6-1-2-3; *ad*₃ situated far distant from anal aperture. All legs monodactyle.

Remarks. The new Korean subspecies, *Brachioppiella ctenifera barbata* differs from the nominate subspecies, *B. ctenifera ctenifera* (GOLOSOVA, 1970) **comb. nov.** from U. S. S. R., mainly in the shape of notogastral setae. Notogastral setae of the nominate subspecies are smooth, but those of the Korean subspecies are distinctly barbed (the subspecies name shows the character). Average body size of the nominate subspecies (376×145 μm) is larger than that of the Korean new subspecies.

Oppia ctenifera GOLOSOVA 1970, is considered here a member of the genus *Brachioppiella*, because it has distinct costulae and only 9 pairs of notogastral setae.

***Multioppia gapsaensis* sp. nov.**

(Fig. 2)

Material examined. Holotype: Gapsa Temple around, Gongjoo Gun, Chungcheong Nam Do, Central Korea. 13-X-1984. —2 paratypes: the same data as

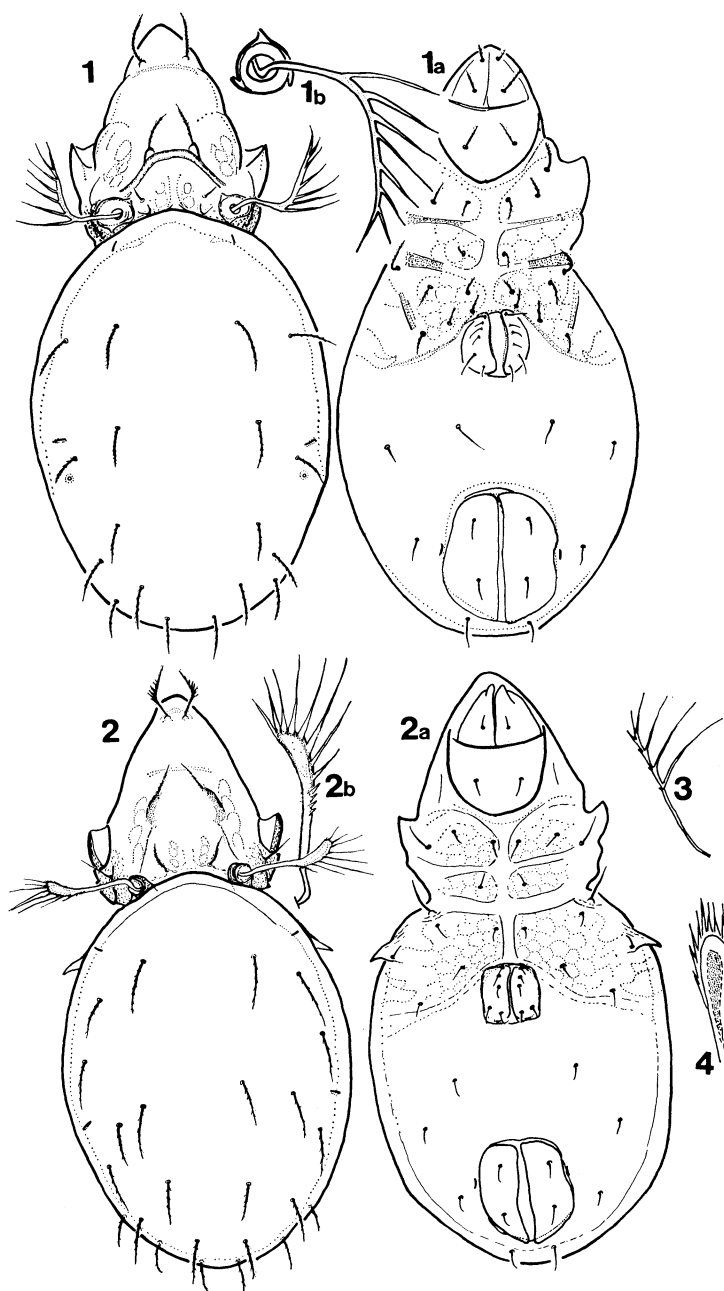


Fig. 1. *Brachioppiella ctenifera barbata* subsp. nov. 1a. Ventral side 1b. Sensillus.
 Fig. 2. *Multioppia gapsaensis* sp. nov. 2a. Ventral side 2b. Sensillus.
 Fig. 3. Sensillus of *M. gracilis* HAMMER (after HAMMER, 1972).
 Fig. 4. Sensillus of *M. pulchra* LITTLEWOOD et WALLAORK (after LITTLEWOOD & WALLAORK, 1972).

the holotype. —1 paratype: Geumsansa Temple around, Kimjae Gun, Jeonla Buk Do, southern Korea. 1-X-1984. All the specimens are deposited in Laboratory of Plant Protection, College of agriculture, Won Kwang University, Iri, Korea.

Measurement. Length: 380 μm , width: 140–145 μm .

Description. [Prodorsum] Rostrum smooth. Short and faint costulae on middle field of prodorsum. Three pairs of circular pale areas found in front of interlamellar setae. Four pairs of circular pale areas arranged longitudinally lateral to costulae. A longitudinal furrow located behind costula; anterior end of the furrow touching posterior end of costula. Indistinct transverse ridge found in front of lamellar setae and rostral setae, respectively. Exobothridial and pedotectal regions heavily ornamented by small granules. Rostral seta thickened, weakly elbowed at middle part in dorsal view and distinctly barbed on outer border; especially, the cilia at elbowed part rather long. The setae inserted each on a small apophyse situated some distance behind rostrum; the mutual distance of rostral setae $1/3$ the length of the setae, or less. Lamellar seta thin, barbed, shorter than rostral seta and situated on anterior end of costula. Interlamellar seta distinctly barbed. Mutual distance of lamellar setae longer than that of interlamellar setae. Sensillus clavate, with 10–12 seta-like pectinations on posterior border; among them 8 ciliae rather long, of which seventh or eighth cilia is the longest; 4 basal ciliae very short.

[Notogaster] Twelve pairs of notogastral setae barbed and rather long. Anterior margin of notogaster heavily chitinized.

[Ventral side] Epimeral ridges I, II and SJ well developed, but III lacking; epimerata III and IV fused. Epimeral field faintly reticulated. Discidium very sharp at distal part. Epimeral setae thin and short; the setal formula: 3-1-3-3; seta $3c$ long and inserted on apophyse located on anterolateral corner of epimeral ridge SJ. Genitoanal chaetotaxy: 5-1-2-3. Genital aperture rectangular in outline.

Remarks. In having a pair of short costulae bearing lamellar setae, the new Korean species, *M. gapsaensis* sp. nov., is similar to *M. pulchra* LITTLEWOOD et WALLWORK, 1972, from St. Kilda and *M. gracilis* HAMMER, 1972, from Tahiti. However, the new species differs from the latter mainly in form of the sensillus and distributional pattern of body setae. According to the original description and figure of *M. pulchra*, (1) the sensillus has a compressed, semicircular head with 7–10 pointed projections (Fig. 4), (2) rostral setae are separated more from

each other, (3) notogastral seta *lm* is located far inside and (4) a discontinuous ring of light spots is found peripherally on the notogaster. On the other hand, the sensillus of *M. gracilis* without expanded head bearing 4 very long and slender branches on one side and 4-5 short ones on the other side (Fig. 3).

***Oppia sagami* AOKI**

(Fig. 5)

Oppia sagami AOKI, 1984, p. 115, fig. 8.

Measurement. Length: 265-280 μm , width: 150-160 μm .

Locality. Gapsa Temple around, Gongjoo Gun, Chungcheong Nam Do, Central Korea. 13-X-1984.

Distribution. Japan and Korea.

Supplementary description. Length of the mutual distance of prodorsal setae: $le-le \div in-in > ro-ro$. The mutual distance of notogastral setae *ms* subequal to or longer than that of setae *ti*. All epimeral plates reticulated and the plates III and IV fused. Aggenital setae located nearer to anal aperture than to genital aperture. Epimeral chaetotaxy: 3-1-3-3. All legs monodactyle.

***Oppia minutissima* SELLNICK**

(Fig. 6)

Oppia minutissima SELLNICK, 1950, p. 275, fig. 1; HAMMER, 1961, p. 51, fig. 41; 1968, p. 56, fig. 74.

Measurement. Length: 175 μm , width: 75 μm .

Locality. Gapsa Temple around, Gongjoo Gun, Chungcheong Nam Do, Central Korea. 13-X-1984.

Distribution. Germany, New Zealand, Peru and Korea.

***Parasynoppia longisensillata* AOKI**

(Fig. 7)

Parasynoppia longisensillata AOKI, 1983, p. 167, fig. 14.

Measurement. Length: 230 μm , width: 130 μm .

Locality. Mt. Songli, 600 m above the sea level, Chungcheong Buk Do, Central Korea. 2-IV-1983.

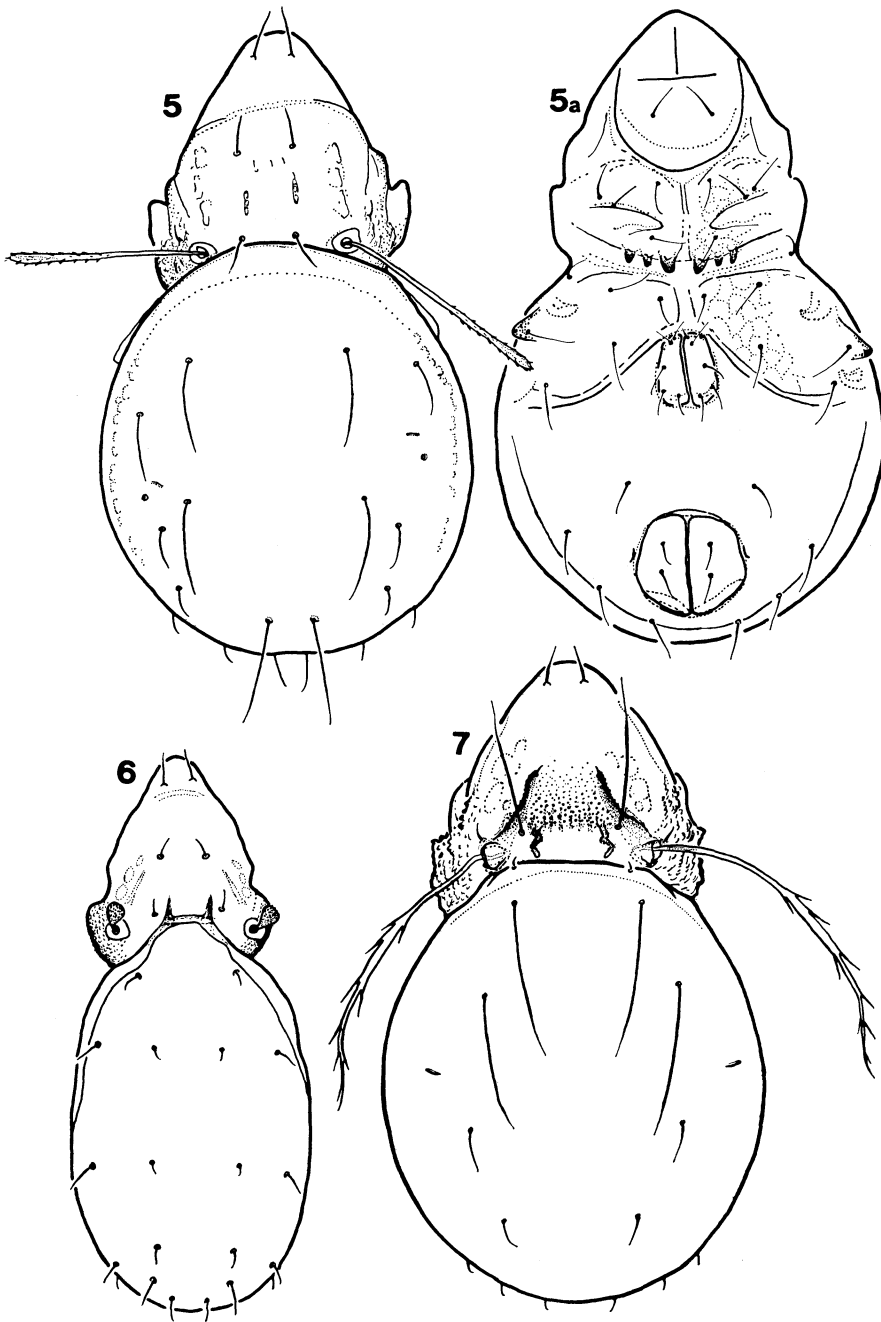


Fig. 5. *Oppia sagami* AOKI 5a. Ventral side.

Fig. 6. *Oppia minutissima* SELLNICK.

Fig. 7. *Parasynoppia longisensillata* AOKI.

Distribution. Japan and Korea.

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摘 要

崔 星植 (円光大学校農科大学, 〒510 韓国裡里市新龍洞 344-1): 韓国産 ササラダニ類 (5), Oppiidae科の新種および新記録種。

韓国産ササラダニ類のうち, ツブダニ科 Oppiidae 科に属する 1 新種, 1 新亜種および 3 新記録種を記載した。 *Oppia ctenifera* GOLOSOVA, 1970 は *Oppia* 属から *Brachioppiella* 属に移した。新種は *Brachioppiella ctenifera barbata* ssp. nov., *Multioppia gapsaensis* sp. nov. であるし, 新記録種は *Oppia sagami* AOKI, 1984, *O. minutissima* SELLNICK, 1950 および *Parasynoppia longisensillata* AOKI, 1983 である。

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